

Supplementary Table S2 All sequences used from GISAID's EpiFlu database in this study

We acknowledge the authors, originating and submitting laboratories of the sequences from GISAID's EpiFlu™ Database on which this research is based. The list is detailed below.
All submitters of data may be contacted directly via the GISAID website www.gisaid.org

Segment ID	Segment nt	Country	Collection date	Isolate name	Originating Lab	Submitting Lab	Authors	
EPI5158	41	MP	China	2013-Apr-16	A/Chicken/Nantong/031-2/2013	Beijing Institute of Microbiology and Epidemiology	Beijing Institute of Microbiology and Epidemiology	Fan, Hang; Liu, Wei; Tong, Yigang; Cao, Wuchun
EPI5158	33	MP	China	2013-Apr-16	A/Chicken/Nanjing/023/2013	Beijing Institute of Microbiology and Epidemiology	Beijing Institute of Microbiology and Epidemiology	Fan, Hang; Liu, Wei; Tong, Yigang; Cao, Wuchun
EPI5300	67	NS	China	2013-Dec-02	A/environment/Shenzhen/25-24	BGI	Jinquan, Cheng; Renli, Zhang; Shisong, Fang	
EPI5300	58	NS	China	2014-Jan-10	A/duck/Jiangxi/95/2014	BGI	Bing, Xu; Tao, Zhang; Xiaowen, Li	
EPI5300	61	PA	China	2013-Dec-02	A/environment/Shenzhen/25-24	Shenzhen BGI	Jinquan, Cheng; Renli, Zhang; Shisong, Fang	
EPI5300	PA	China	2014-Jan-	A/duck/Jiangxi/95/2014	Shenzhen BGI	Bing, Xu; Tao, Zhang; Xiaowen, Li		

53			10			Shenzhen	
EPI5300			2014-Jan-			BGI	
52	PB1	China	10	A/duck/Jiangxi/95/2014	Shenzhen		Bing, Xu; Tao, Zhang; Xiaowen, Li
EPI5300			2013-Dec-	A/environment/Shenzhen/25-24	BGI		
60	PB1	China	02	/2013	Shenzhen		Jinquan, Cheng; Renli, Zhang; Shisong, Fang
EPI5300			2014-Jan-		BGI		
51	PB2	China	10	A/duck/Jiangxi/95/2014	Shenzhen		Bing, Xu; Tao, Zhang; Xiaowen, Li
EPI5300			2013-Dec-	A/environment/Shenzhen/25-24	BGI		
59	PB2	China	02	/2013	Shenzhen		Jinquan, Cheng; Renli, Zhang; Shisong, Fang
EPI5300			2013-Dec-	A/environment/Shenzhen/25-24	BGI		
63	HA	China	02	/2013	Shenzhen		Jinquan, Cheng; Renli, Zhang; Shisong, Fang
EPI5300			2014-Jan-		BGI		
54	HA	China	10	A/duck/Jiangxi/95/2014	Shenzhen		Bing, Xu; Tao, Zhang; Xiaowen, Li
EPI5300			2014-Jan-		BGI		
57	MP	China	10	A/duck/Jiangxi/95/2014	Shenzhen		Bing, Xu; Tao, Zhang; Xiaowen, Li
EPI5300			2013-Dec-	A/environment/Shenzhen/25-24	BGI		
66	MP	China	02	/2013	Shenzhen		Jinquan, Cheng; Renli, Zhang; Shisong, Fang
EPI5300			2014-Jan-		BGI		
56	NA	China	10	A/duck/Jiangxi/95/2014	Shenzhen		Bing, Xu; Tao, Zhang; Xiaowen, Li
EPI5300			2013-Dec-	A/environment/Shenzhen/25-24	BGI		
65	NA	China	02	/2013	Shenzhen		Jinquan, Cheng; Renli, Zhang; Shisong, Fang
EPI5300			2013-Dec-	A/environment/Shenzhen/25-24	BGI		
64	NP	China	02	/2013	Shenzhen		Jinquan, Cheng; Renli, Zhang; Shisong, Fang
EPI5300			2014-Jan-		BGI		
55	NP	China	10	A/duck/Jiangxi/95/2014	Shenzhen		Bing, Xu; Tao, Zhang; Xiaowen, Li
EPI4246	NS	Vietna	2012-Aug-	A/duck/Vietnam/NCVD-1940/201	National Centers		

66		m	29	2	Centre of Veterinary Diagnostics and Prevention
EPI4246	68	Vietna PA	2012-Aug-	A/duck/Vietnam/NCVD-1940/201	National Disease Control
		m	29	2	Veterinary and
					Diagnostics Prevention
					Centers
					for
					National Disease
					Centre of Control
EPI4246	70	Vietna PB1	2012-Aug-	A/duck/Vietnam/NCVD-1940/201	Veterinary and
		m	29	2	Diagnostics Prevention
					Centers
					for
					National Disease
					Centre of Control
EPI4246	69	Vietna PB2	2012-Aug-	A/duck/Vietnam/NCVD-1940/201	Veterinary and
		m	29	2	Diagnostics Prevention
					National Centers
EPI4246	72	Vietna HA	2012-Aug-	A/duck/Vietnam/NCVD-1940/201	Centre of for
		m	29	2	Veterinary Disease

					Diagnostics	Control and Prevention Centers for National Disease Centre of Control Veterinary and Diagnostics Prevention	
EPI2845		Vietna	2009-Mar-				Davis, Todd; Rivailler, Pierre; Nguyen, Tung
50	HA	m	01	A/duck/Vietnam/NCVD-293/2009	Diagnostics	Centers for National Disease Centre of Control Veterinary and Diagnostics Prevention	
EPI4246		Vietna	2012-Aug-	A/duck/Vietnam/NCVD-1940/201	Veterinary	and Diagnostics Prevention	
67	MP	m	29	2		Centers for National Disease Centre of Control Veterinary and Diagnostics Prevention	
EPI4246		Vietna	2012-Aug-	A/duck/Vietnam/NCVD-1940/201	Veterinary	and Diagnostics Prevention	
65	NP	m	29	2		Chinese	
EPI4663			2011-Jan-		Yangzhou	Academy of	
76	PB1	China	21	A/chicken/Jiangsu/DTNSZ/2011	University	Sciences	Daxin, P
EPI4663			2011-Jan-		Yangzhou	Chinese	
73	MP	China	21	A/chicken/Jiangsu/DTNSZ/2011	University	Academy of	Daxin, P

EPI5351	88	NP	China	2014-Feb-09	A/Hangzhou/112/2014	Hangzhou Center for Disease Control and Prevention	Sciences Hangzhou Center for Disease Control and Prevention	Pu, XY; Li, J; Yu, XF; Kou, Y; Zhou, YY; Qian, X; Pan, JC
EPI4576	48	MP	China	2013-Apr-03	A/environment/Shanghai/S1439	Harbin Veterinary Research Institute	Zhang, Q. ; Shi, J. ; Deng, G. ; Guo, J. ; Zeng, X. ; He, X. ; Kong, H. ; Gu, C. ; Li, X. ; Liu, J. ; Wang, G. ; Chen, Y. ; Liu, L. ; Liang, L. ; Li, Y. ; Fan, J. ; Wang, J. ; Li, W. ; Guan, L. ; Li, Q. ; Yang, H. ; Chen, P. ; Jiang, L. ; Guan, Y. ; Xin, X. ; Jiang, Y. ; Tian, G. ;	
EPI4314	52	NS	China	2011-Dec-01	A/duck/Hebei/2/2011	Harbin Veterinary Research Institute	Zhang, Q. ; Shi, J. ; Deng, G. ; Guo, J. ; Zeng, X. ; He, X. ; Kong, H. ; Gu, C. ; Li, X. ; Liu, J. ; Wang, G. ; Chen, Y. ; Liu, L. ; Liang, L. ; Li, Y. ; Fan, J. ; Wang, J. ; Li, W. ; Guan, L. ; Li, Q. ; Yang, H. ; Chen, P. ; Jiang, L. ; Guan, Y. ; Xin, X. ; Jiang, Y. ; Tian, G. ;	
EPI4314	47	PA	China	2011-Dec-01	A/duck/Hebei/2/2011	Academy of Sciences Institute of Microbiology	Di, Liu; Haigang, Sun; Jinghua, Yan; George F, Gao; Juncai, Ma	

					Institute	
EPI4314					of	
49	NP	China	01	A/duck/Hebei/2/2011	Microbiolog	Institute
					y, Chinese	of
					Academy of	Microbiolo
					Sciences	gy
					Public	Public
					Health	Health
					Laboratory	Laboratory
					Services	Services
					Branch,	Branch,
		Hong			Centre for	Centre for
EPI3755		Kong	2012-May-		Health	Health
06	NS	(SAR)	28	A/Hong Kong/5923/2012	Protection	Protection
					Public	Public
					Health	Health
					Laboratory	Laboratory
					Services	Services
					Branch,	Branch,
		Hong			Centre for	Centre for
EPI5098		Kong	2014-Mar-		Health	Health
82	NS	(SAR)	17	A/Hong Kong/8113530/2014	Protection	Protection
					Public	Public
					Health	Health
EPI3755		Kong	2012-May-		Laboratory	Laboratory
03	PA	(SAR)	28	A/Hong Kong/5923/2012	Services	Services
					Di, Liu; Haigang, Sun; Jinghua, Yan; George F, Gao; Juncai, Ma	
					Mak, G. C. ; Cheng, P. K. C. ; Lo, J. Y. C.	
					Mak, G. C. ; Cheng, P. K. C. ; Lo, J. Y. C.	
					Mak, G. C. ; Cheng, P. K. C. ; Lo, J. Y. C.	

					Branch, Centre for Health Protection Public Health Laboratory Services Branch,	Branch, Centre for Health Protection Public Health Laboratory Services Branch,	
EPI3755		Hong Kong	2012-May-				
02	PB1	(SAR)	28	A/Hong Kong/5923/2012	Centre for Health Protection Public Health Laboratory Services Branch,	Centre for Health Protection Public Health Laboratory Services Branch,	Mak, G. C. ; Cheng, P. K. C. ; Lo, J. Y. C.
EPI3755		Hong Kong	2012-May-				
01	PB2	(SAR)	28	A/Hong Kong/5923/2012	Centre for Health Protection Public Health Laboratory Services Branch,	Centre for Health Protection Public Health Laboratory Services Branch,	Mak, G. C. ; Cheng, P. K. C. ; Lo, J. Y. C.
EPI4908		Hong Kong	2013-Nov-				
79	PB2	(SAR)	30	A/Hong Kong/5942/2013	Centre for	Centre for	Mak, G. C. ; Cheng, P. K. C. ; Lo, J. Y. C.

					Health	Health
					Protection	Protection
					Public	Public
					Health	Health
					Laboratory	Laboratory
					Services	Services
					Branch,	Branch,
		Hong			Centre for	Centre for
EPI3754		Kong	2012-May-		Health	Health
32	HA	(SAR)	28	A/Hong Kong/5923/2012	Protection	Protection
					Public	Public
					Health	Health
					Laboratory	Laboratory
					Services	Services
					Branch,	Branch,
		Hong			Centre for	Centre for
EPI3754		Kong	2012-May-		Health	Health
34	MP	(SAR)	28	A/Hong Kong/5923/2012	Protection	Protection
					Public	Public
					Health	Health
					Laboratory	Laboratory
					Services	Services
					Branch,	Branch,
		Hong			Centre for	Centre for
EPI3755		Kong	2012-May-		Health	Health
04	NP	(SAR)	28	A/Hong Kong/5923/2012	Protection	Protection
					Mak, G. C. ; Cheng, P. K. C. ; Lo, J. Y. C.	

EPI5803	91	NS	China	2015-Feb-10	A/Chicken/Guangdong/SW154/20	South China University	Shumin, Xie; Weixin, Jia; Yicun, Lin; Kaixiang, Xing; Xingxing, Ren; Wenbao, Qi; Ming, Liao	Agricultural University
EPI5803	83	NS	China	2015-Feb-05	A/Chicken/Guangdong/SW153/20	South China University	Shumin, Xie; Weixin, Jia; Yicun, Lin; Kaixiang, Xing; Xingxing, Ren; Wenbao, Qi; Ming, Liao	South China University
EPI5803	86	PA	China	2015-Feb-10	A/Chicken/Guangdong/SW154/20	South China University	Shumin, Xie; Weixin, Jia; Yicun, Lin; Kaixiang, Xing; Xingxing, Ren; Wenbao, Qi; Ming, Liao	South China University
EPI5803	78	PA	China	2015-Feb-05	A/Chicken/Guangdong/SW153/20	South China University	Shumin, Xie; Weixin, Jia; Yicun, Lin; Kaixiang, Xing; Xingxing, Ren; Wenbao, Qi; Ming, Liao	South China University
EPI5803	77	PB1	China	2015-Feb-05	A/Chicken/Guangdong/SW153/20	South China University	Shumin, Xie; Weixin, Jia; Yicun, Lin; Kaixiang, Xing; Xingxing, Ren; Wenbao, Qi; Ming, Liao	South China University

EPI5803	85	PB1	China	2015-Feb-10	A/Chicken/Guangdong/SW154/20	South China University	Shumin, Xie; Weixin, Jia; Yicun, Lin; Kaixiang, Xing; Xingxing, Ren; Wenbao, Qi; Ming, Liao	Agricultural University
EPI5803	84	PB2	China	2015-Feb-10	A/Chicken/Guangdong/SW154/20	South China University	Shumin, Xie; Weixin, Jia; Yicun, Lin; Kaixiang, Xing; Xingxing, Ren; Wenbao, Qi; Ming, Liao	Agricultural University
EPI5803	76	PB2	China	2015-Feb-05	A/Chicken/Guangdong/SW153/20	South China University	Shumin, Xie; Weixin, Jia; Yicun, Lin; Kaixiang, Xing; Xingxing, Ren; Wenbao, Qi; Ming, Liao	Agricultural University
EPI5803	82	MP	China	2015-Feb-05	A/Chicken/Guangdong/SW153/20	South China University	Shumin, Xie; Weixin, Jia; Yicun, Lin; Kaixiang, Xing; Xingxing, Ren; Wenbao, Qi; Ming, Liao	Agricultural University
EPI5803	90	MP	China	2015-Feb-10	A/Chicken/Guangdong/SW154/20	South China University	Shumin, Xie; Weixin, Jia; Yicun, Lin; Kaixiang, Xing; Xingxing, Ren; Wenbao, Qi; Ming, Liao	Agricultural University

EPI5803	88	NP	China	2015-Feb-	A/Chicken/Guangdong/SW154/20	South China Agricultural University	Shumin, Xie; Weixin, Jia; Yicun, Lin; Kaixiang, Xing; Xingxing, Ren; Wenbao, Qi; Ming, Liao	
				10	15	1	al	
EPI5803	80	NP	China	2015-Feb-	A/Chicken/Guangdong/SW153/20	South China Agricultural University	Shumin, Xie; Weixin, Jia; Yicun, Lin; Kaixiang, Xing; Xingxing, Ren; Wenbao, Qi; Ming, Liao	
				05	15	1	al	
EPI5417	73	PA	Taiwan	2013-Dec-	A/Taiwan/3/2013	Centers for Disease Control	Taiwan CDC	
				27				